

NOTE: All references to Harris County and City of Houston shall be referred to City of Sugar Land, Department of Public Works.

THE GUIDELINES PRESENTED IN THIS DOCUMENT INCLUDE THE MOST OFTEN REQUESTED INFORMATION REGARDING GEOMETRIC DESIGN OF SUBDIVISION STREETS. DESIGNATED MAJOR THOROUGHFARES(I), EXPRESS STREETS(I) WITHIN SUBDIVISIONS, AND EXISTING ACCESS STREETS, SHALL BE CONSIDERED FOR SPECIAL DESIGN FEATURES AND MAY REQUIRE HIGHER DESIGN CRITERIA THAN SHOWN HEREIN. ALSO DESIGN FEATURES NOT SHOWN IN THESE GUIDELINES SHOULD BE CONSIDERED SPECIAL DESIGN FEATURES.

IT IS ADVISABLE TO CONSULT WITH THE APPROPRIATE AGENCIES AND REVIEW THE FOLLOWING PUBLICATIONS TO DETERMINE ADEQUATE THOROUGHFARE REQUIREMENTS AND SPECIAL DESIGN FEATURES.

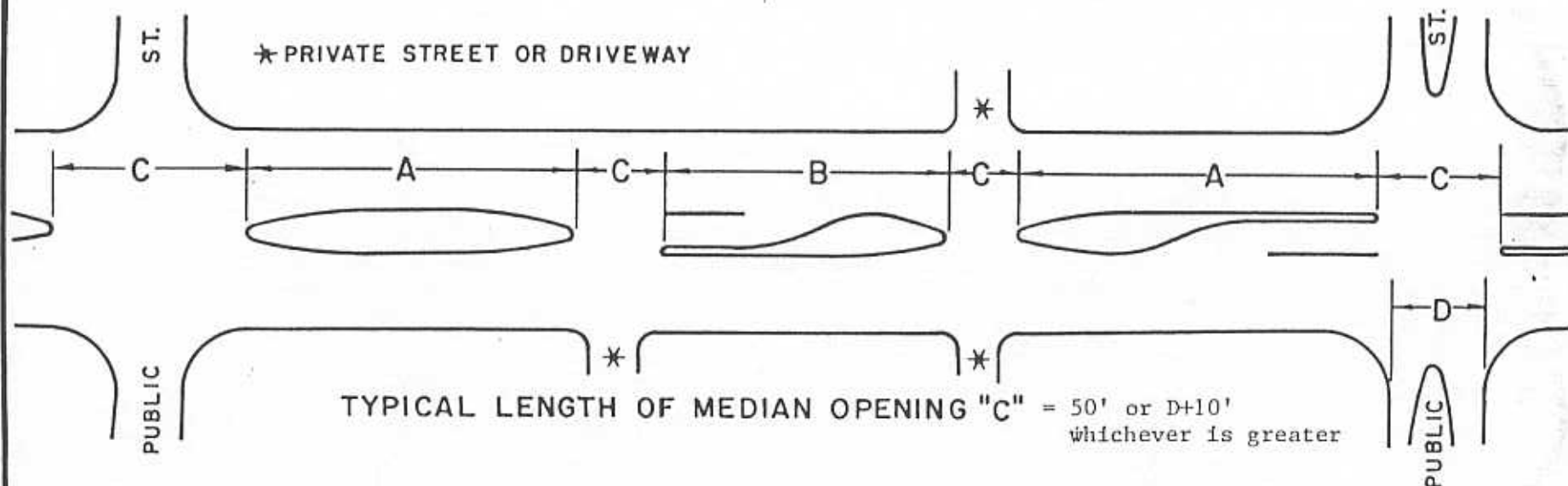
- * RECOMMENDED GUIDELINES FOR SUBDIVISION STREETS, INSTITUTE OF TRANSPORTATION ENGINEERS, 1984.
- * GUIDELINES FOR URBAN MAJOR STREETS DESIGN, INSTITUTE OF TRANSPORTATION ENGINEERS, 1984.
- * A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AASHTO, 1984.
- * TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION, 1980.

AGENCY ABBREVIATION:

HCED - HARRIS COUNTY ENGINEERING DEPARTMENT.
DOTT - CITY OF HOUSTON, DEPARTMENT OF TRAFFIC AND TRANSPORTATION.
DPW - CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS.
DPD - CITY OF HOUSTON, DEPARTMENT OF PLANNING AND DEVELOPMENT.

(I) DESIGNATED ROADWAY APPEARING ON THE MAJOR THOROUGHFARE AND FREEWAY PLAN, HOUSTON CITY PLANNING COMMISSION, AND HOUSTON EXPRESS STREET PLAN, DEPARTMENT OF TRAFFIC AND TRANSPORTATION.

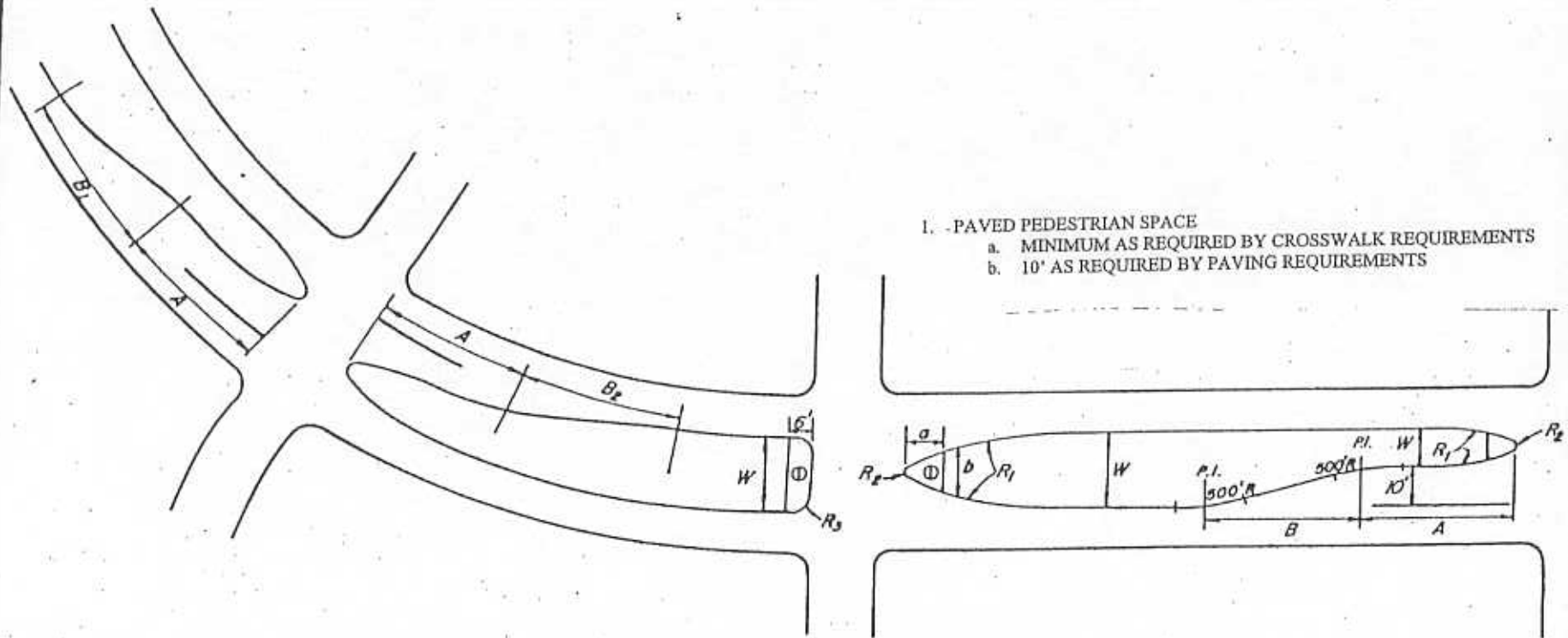
TYPICAL LENGTH OF MEDIAN AND MEDIAN OPENING



MINIMUM ACCEPTABLE MEDIAN LENGTH FOR TYPE OF STREET

IF PLANNED DIVIDED STREET IS:	PURPOSE OF MEDIAN INTERRUPTION			
	MAJOR STREET/ THOROUGHFARE (A)	COLLECTOR STREET (A)	LOCAL STREET (A)	PRIVATE STREET OR DRIVEWAY (B)
MAJOR STREET/ THOROUGHFARE	350'	300'	300'	300'
COLLECTOR STREET	300'	250'	250'	250
LOCAL STREET	250'	250'	250'	200

MEDIAN NOSE AND LEFT TURN BAY DESIGN



MEDIAN DIMENSIONS

W	R ₁	R ₂	R ₃
≤ 8'	NONE	$\frac{W}{2}$	NA
> 8' ≤ 38'	90'	$\frac{W}{5}$	NA
> 38'	NONE	NONE	15'

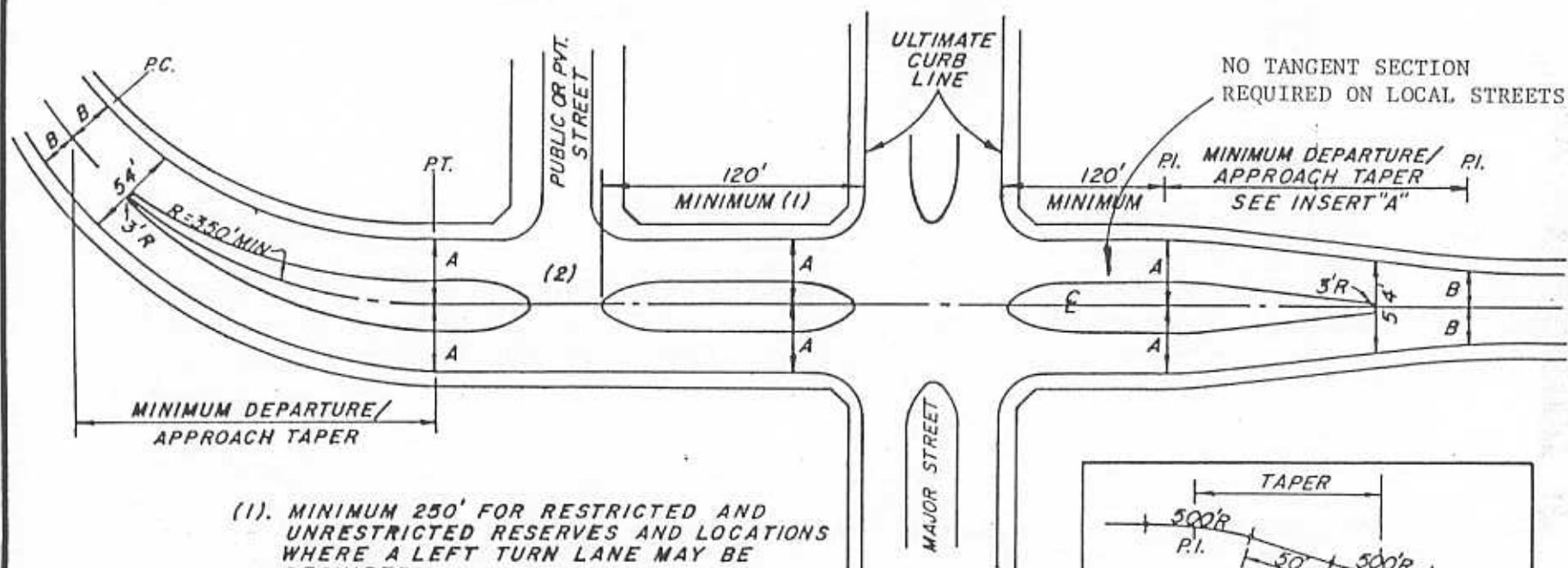
NA - NOT APPLICABLE

LEFT TURN BAY DIMENSIONS

- A = 150' MINIMUM AT INTERSECTION OF TWO MAJOR STREETS
= 100' MINIMUM AT ALL OTHER INTERSECTIONS
- B = 100' MINIMUM ON STRAIGHT ROADWAY. (FOR SINGLE LEFT)
= 150' MINIMUM ON STRAIGHT ROADWAY. (FOR DUAL LEFT)
- B1 = TAPER LENGTH MAY BE SHORTER IF IT IS ON A HORIZONTAL CURVE TO THE LEFT.
- B2 = TAPER LENGTH MAY BE LONGER IF CURVE IS TO THE RIGHT.

NOTE: DIMENSIONS MAY BE ADJUSTED AS DETERMINED BY THE DEPARTMENT OF PUBLIC WORKS. THE ABOVE LENGTHS ARE MINIMUM DISTANCE AND MAY REQUIRE ADJUSTING TO COMPLY WITH ACCEPTABLE ENGINEERING PRACTICES OR AN APPROVED TRAFFIC IMPACT ANALYSIS.

ROADWAY TAPERS FOR SUBDIVISION STREETS



- (1). MINIMUM 250' FOR RESTRICTED AND UNRESTRICTED RESERVES AND LOCATIONS WHERE A LEFT TURN LANE MAY BE REQUIRED.
- (2). MEDIAN OPENING MAY NOT BE ALLOWED IF MEDIAN IS LESS THAN 250' IN LENGTH.

NOTE:

a. APPROACH AND DEPARTURE TAPER REQUIREMENT:

$$L = \frac{WS^2}{60} \quad \text{WHERE } L = \text{LENGTH IN FEET}$$

S = SPEED IN M.P.H.

For S < 40

W = LATERAL OFFSET IN FEET

S = 30 M.P.H. MINIMUM DESIGN SPEED FOR SUBDIVISION STREETS

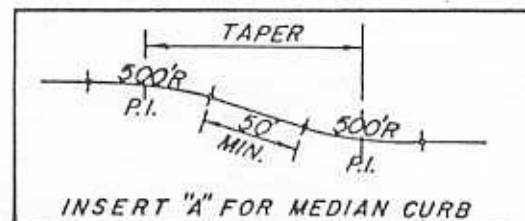
$$W = A - B$$

b. 350' MINIMUM CENTERLINE RADIUS FOR HORIZONTAL CURVE WITH APPROACH OR DEPARTURE TAPERS

c. Approach and departure taper requirement

$$S \geq 45$$

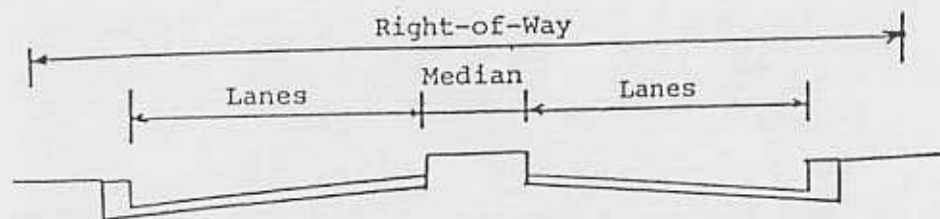
$$L = SW$$



QUICK REFERENCE GUIDE (30 MPH)

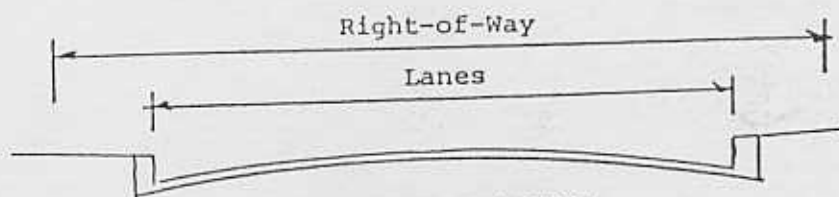
ROADWAY CROSS SECTION (FEET)		TAPER $L = \frac{WS^2}{60}$ (FEET)
A+A	B+B	
80	60	150
80	40	300
80	27	400
70	40	225
70	27	325
60	40	150
60	27	250
40	27	100

GEOMETRIC STREET DESIGN STANDARDS
(Minimum Standards)



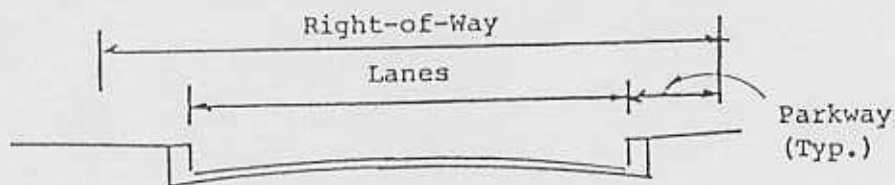
DIVIDED ROADWAYS
Arterials

- * P6D - Principal Arterial, 6 Lanes, Divided
- * P4D - Principal Arterial, 4 Lanes, Divided



UNDIVIDED ROADWAYS
Arterials - Collectors

- * M4U - Minor Arterial, 4 Lanes, Undivided
- * C4U - Major Collector, 4 Lanes, Undivided
- * C2U - Minor Collector, 2 Lanes, Undivided



LOCAL STREET

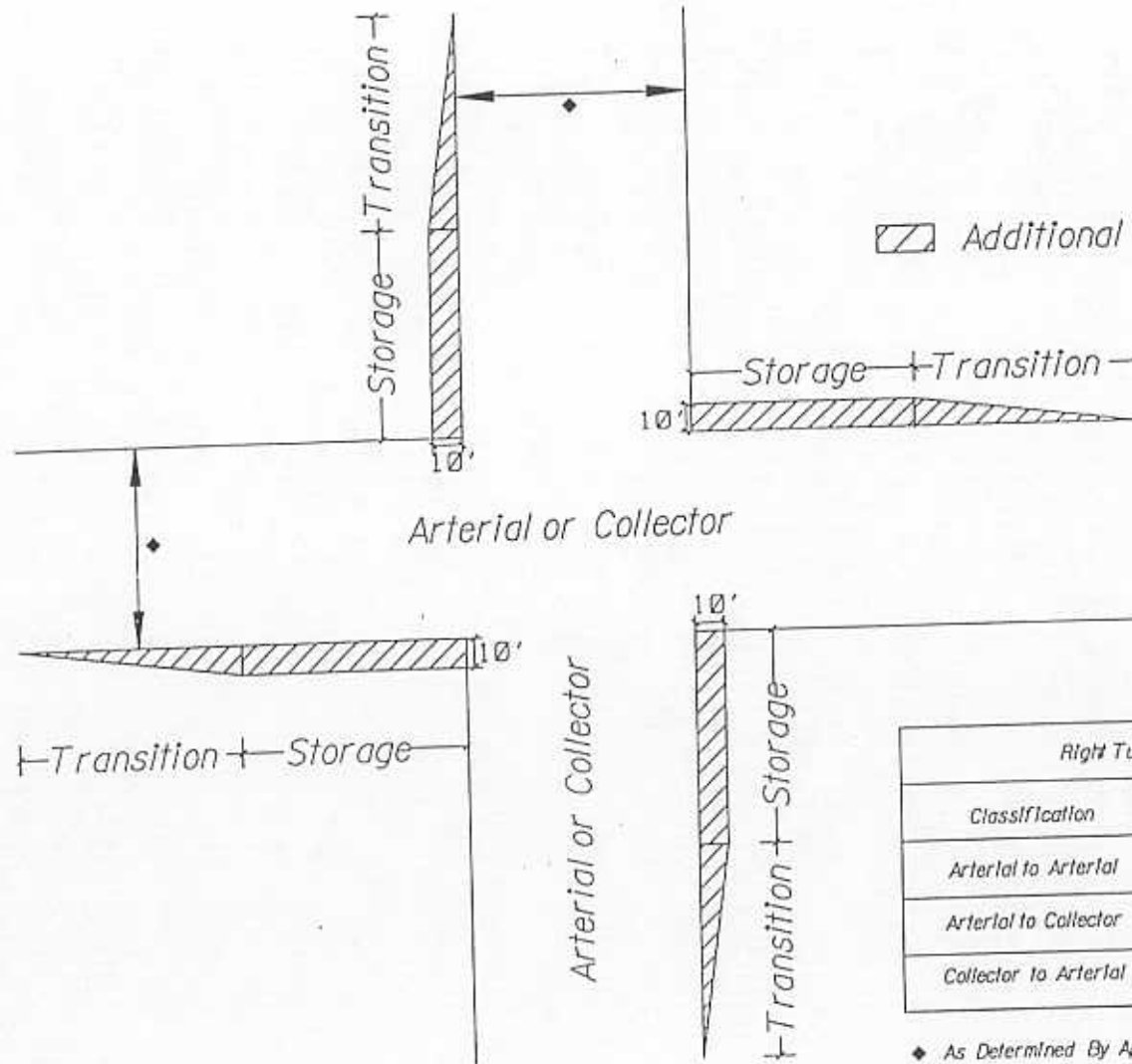
- * L2U - Residential, 2 Lanes, Undivided

Design Element	Roadway Type					
	P6D	P4D	M4U	C4U	C2U	L2U
Number Traffic Lanes	6	4	4	4	2	2
Lane Width (Ft.)	12	12	12	11	36'- 40' F-F	27' F-F
R.O.W. Width (Ft.)	120	100	70	65	60	50
Design Speed (MPH)	40 - 50	40 - 50	35 - 45	30 - 40	30 - 40	20 - 30
Max. Grade (%)	6	6	6	8	8	10
Stopping Sight Distance (Ft.)	325 - 525	325 - 475	250 - 400	200 - 325	200 - 325	125 - 200
Horizontal Curvature Min. Radius (Ft.)	2000	2000	1050	850	850	450 or 300 *
Vertical Clearance (Ft.)	15.5	15.5	15.5	15.5	15.5	15.5
Lateral Clearance (Ft.)	6	6	6	6	6	-
Min. Median Width (Ft.)	28	28	-	-	-	-
Parking Permitted	No	No	No	No	Some	Yes
Parkway Width (Ft.)	10	12	11	10.5	10	11.5

* For local streets less than 2000' long.

RIGHT TURN LANE RIGHT-OF-WAY REQUIREMENTS

EXHIBIT A



▨ Additional R.O.W. for Right Turn Lane

Right Turn Lane Right-Of-Way Dimensions	
Classification	Dimensions
Arterial to Arterial	150' Storage; 150' Transition (or as determined by a thoroughfare study)
Arterial to Collector	100' Storage; 150' Transition
Collector to Arterial	100' Storage; 100' Transition

◆ As Determined By Appendix F-5

NOT TO SCALE